



1 9. A method in a computer system for selecting an audio element to transmit to a  
2 remote listener, comprising:

- 3 a) creating a first data structure (referred herein as a VALUE data structure)  
4 representative of a first set of demographic properties related to a  
5 remote listener;
- 6 b) creating a second data structure (referred herein as a KNOWN data  
7 structure) representative of whether said first set of demographic  
8 properties related to the remote listener is known;
- 9 c) creating a third data structure (referred herein as a TARGET data  
10 structure) representative of a target set of demographic properties  
11 relating to an audio element;
- 12 d) creating a fourth data structure (referred herein as a WANT data structure)  
13 representative of whether said target set of demographic properties is  
14 wanted to be targeted; and
- 15 e) comparing said first, second, third, and fourth data structures using bit-  
16 wise binary operations to determine whether the audio element should  
17 be transmitted to the remote listener.

18 10. The method of claim 9 wherein said bit-wise binary operation are performed  
19 according to the Boolean equation: (not WANT) or (KNOWN and ((TARGET xor  
20 VALUE))).

21 11. The method of claim 9 wherein said bit-wise binary operation are performed  
22 according to the Boolean equation: (not WANT) or (KNOWN and ((TARGET and  
23 VALUE) or ((not TARGET) and (not (VALUE))).

24 12. The method of claim 9 wherein said first, second, third, and fourth data structures  
25 are computer words.

26 13. The method of claim 9 wherein said first, second, third, and fourth data structures  
27 are 32-bit computer words.

28 14. The method of claim 9 wherein said first, second, third, and forth data structures  
29 comprise multiple computer words.

30 15. The method of claim 9 wherein at least one of said first set of properties and at  
31 least one of said target set of properties are represented as a single bit.

16. The method of claim 9 wherein at least one of said first set of properties and at least one of said target set of properties are represented as multiple bits.

17. The method of claim 9 wherein said first set of demographic properties includes the age of the remote listener.

18. The method of claim 9 wherein said first set of demographic properties includes the gender of the remote listener.

19. The method of claim 9 wherein said first set of demographic properties includes the marital status of the remote listener.

20. The method of claim 9 wherein said first set of demographic properties includes the city where the remote listener lives.

21. The method of claim 9 wherein said audio element is an advertisement.

22. A customized personal radio broadcast system operable to select an audio element to transmit to a remote listener, comprising:

- a) means for creating a first data structure (referred herein as a VALUE data structure) representative of a first set of demographic properties related to a remote listener;
- b) means for creating a second data structure (referred herein as a KNOWN data structure) representative of whether said first set of demographic properties related to the remote listener is known;
- c) means for creating a third data structure (referred herein as a TARGET data structure) representative of a target set of demographic properties relating to an audio element;
- d) means for creating a fourth data structure (referred herein as a WANT data structure) representative of whether said target set of demographic properties is wanted to be targeted; and
- e) means for comparing said first, second, third, and fourth data structures using bit-wise binary operations to determine whether the audio element should be transmitted to the remote listener.